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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/669,498	09/23/2003	Jun Okazaki	259052003400	3984
25226	7590	04/28/2006	EXAMINER	
MORRISON & FOERSTER LLP 755 PAGE MILL RD PALO ALTO, CA 94304-1018			MENEFEER, JAMES A	
			ART UNIT	PAPER NUMBER
			2828	

DATE MAILED: 04/28/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/669,498

Applicant(s)

OKAZAKI, JUN

Examiner

James A. Menefee

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 March 2006.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,3,5-9 and 11-16 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,3,5-9 and 12-16 is/are rejected.
- 7) ☒ Claim(s) 11 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

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DETAILED ACTION

The examiner of record for this application has changed. See communication information below.

Response to Amendment

The after final amendment filed 3/28/2006 has been entered and claim 17 cancelled. Claims 1, 3, 5-9, and 11-16 are pending.

The indicated allowability of the claims is withdrawn in light of the new rejections presented below. The finality of the prior action is withdrawn and this action is non-final.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 13 and 16 are rejected under 35 U.S.C. 102(b) as being anticipated by JP 08-202247 (“’247”). An English abstract of ‘247 was previously filed in an Information Disclosure Statement. A machine translation is cited herein and a copy provided with this action.

Regarding claim 13, ‘247 discloses a light emitting device comprising a semiconductor laser device 1 which emits a laser beam, a coherence reducing member 3,4 which receives the

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laser beam and reduces coherence of the laser beam to generate a lower coherence light beam, and a protective plate 7 for covering the laser chip and coherence reducing member, wherein the laser beam from the chip is converted into the lower coherence beam by the coherence reducing member, and the protective plate allows the lower coherence beam to pass and prevents the laser beam from passing. See Fig. 1 and discussion pars. [0020] – [0024]. See also par. [0017] (discussing that the device is sealed such that the laser beam does not pass to the outside).

Regarding claim 16, the coherence reducing member comprises a reflecting member 4. Due to the described etching and scatter reflection, par. [0023], the reflective surface is roughened and reflects in an unevenly phase-shifted manner.

Applicant cannot rely upon the foreign priority papers to overcome the following rejection because a translation of said papers has not been made of record in accordance with 37 CFR 1.55. See MPEP § 201.15.

Claims 1, 3, 5-7, and 9 are rejected under 35 U.S.C. 102(e) as being anticipated by US 6,856,087 to Lin et al. (“Lin”).

Regarding claim 1, Lin discloses in Fig. 5B a light emitting device comprising a semiconductor laser 531-533 which emits a laser beam, a reflective member 561-563 formed of a fluorescent material which is excited by the laser beam to generate a light beam having a greater wavelength than the laser beam, and a protective plate 591-593 covering the laser and the reflective member, wherein the laser beam is reflected by the reflective member and converted to the light beam having the greater wavelength, and the protective plate allows the light beam to pass through but prevents the laser beam from passing. Note that Lin discloses the devices 531-

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533 first as LEDs, but then discloses they may instead be laser diodes. Col. 8 lines 17-20. See col. 6 (discussing the device overall); col. 8 lines 40-58 (discussing the fluorescent reflecting layers); col. 11 lines 9-49 (discussing filtering coatings 591-593, called protective plates herein, and their use for preventing laser light from escaping when lasers are used as the light emitting element).

Regarding claims 3 and 5-6, in the various parts cited above, the laser light may be blue and the fluorescent material producing white light. A laser diode has a PN junction and will emit from a face parallel to the junction.

Regarding claim 7, positive and negative electrodes are disclosed. Col. 7 lines 54-56.

Regarding claim 9, there may be three laser chips emitting red green and blue. Col. 10 lines 38-40.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 3, 5-9, and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over US 6,340,824 to Komoto et al. ("Komoto").

Regarding claim 1, Komoto discloses in Fig. 77 (and discussion col. 36-37) a light emitting device comprising a semiconductor laser chip 990 which emits a laser beam, a reflective member formed of fluorescent material FL that is excited by the laser beam to generate a light

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beam having a higher wavelength than the laser beam. There is not disclosed the protective plate as claimed in this embodiment; however, a protective film RE1 is disclosed in later embodiments, and allows the light beam to pass therethrough while preventing the laser beam from passing. See, e.g., Figs. 105, 108, 113. It would have been obvious to one skilled in the art to include this protective plate in the Fig. 77 embodiment because it allows for efficient wavelength conversion by preventing leakage of the laser beam, as taught by Komoto. See col. 48 lines 35-50.

Note also that while Komoto discloses the light emitting chip as an LED, it is later disclosed that instead laser diodes may be used. Col. 71 lines 20-22.

Regarding claim 3, the light emitting element may emit blue. Col. 36 lines 39-41. The fluorescent material can be excited to generate white light. Col. 15 lines 58-64 (Note the Fig. 77 discussion explicitly points to embodiment one in discussing the fluorescent material).

Regarding claims 5-7, the structure of the actual light emitting device is shown in Figs. 1-2. The structure may be as claimed, all of which are in any event typical in the art.

Regarding claims 8 and 12, heat sinks are well known in the art and used in lasers such as those in Komoto. It would have been obvious to one skilled in the art to use a heat sink, i.e. a metal block for dissipating heat, because excessive heat often has deleterious effects on performance and one skilled in the art would have been inclined to avoid such heat. The metal block will pass through the package so that heat will be dissipated to the outside.

Regarding claim 9, the device may emit red green and blue. Col. 14 lines 30-39.

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Claims 14-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over US '247 in view of Komoto. '247 discloses the limitations of parent claim 13 as noted above, but does not disclose that the coherence reducing member is formed of a fluorescent material as claimed. These features are taught by Komoto, see rejection of claims 1 and 3 above. It would have been obvious to one skilled in the art to additionally include such fluorescent materials because using such materials allows for extraction of light at a particular wavelength without worry that there may be variations in the output of the underlying light emitting device—that is, it provides for a highly stable output, as taught by Komoto. See col. 3 lines 13-21.

Allowable Subject Matter

Claim 11 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. There is no suggestion in the prior art, for the device as described in claim 1, for the protective plate to contain the same material as the fluorescent material.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to James A. Menefee whose telephone number is (571) 272-1944. The examiner can normally be reached on M-F 8:30-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, MinSun Harvey can be reached on (571) 272-1835. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

A handwritten signature in black ink, appearing to read 'J. Menefee', with a long horizontal flourish extending to the right.

James Menefee
April 25, 2006